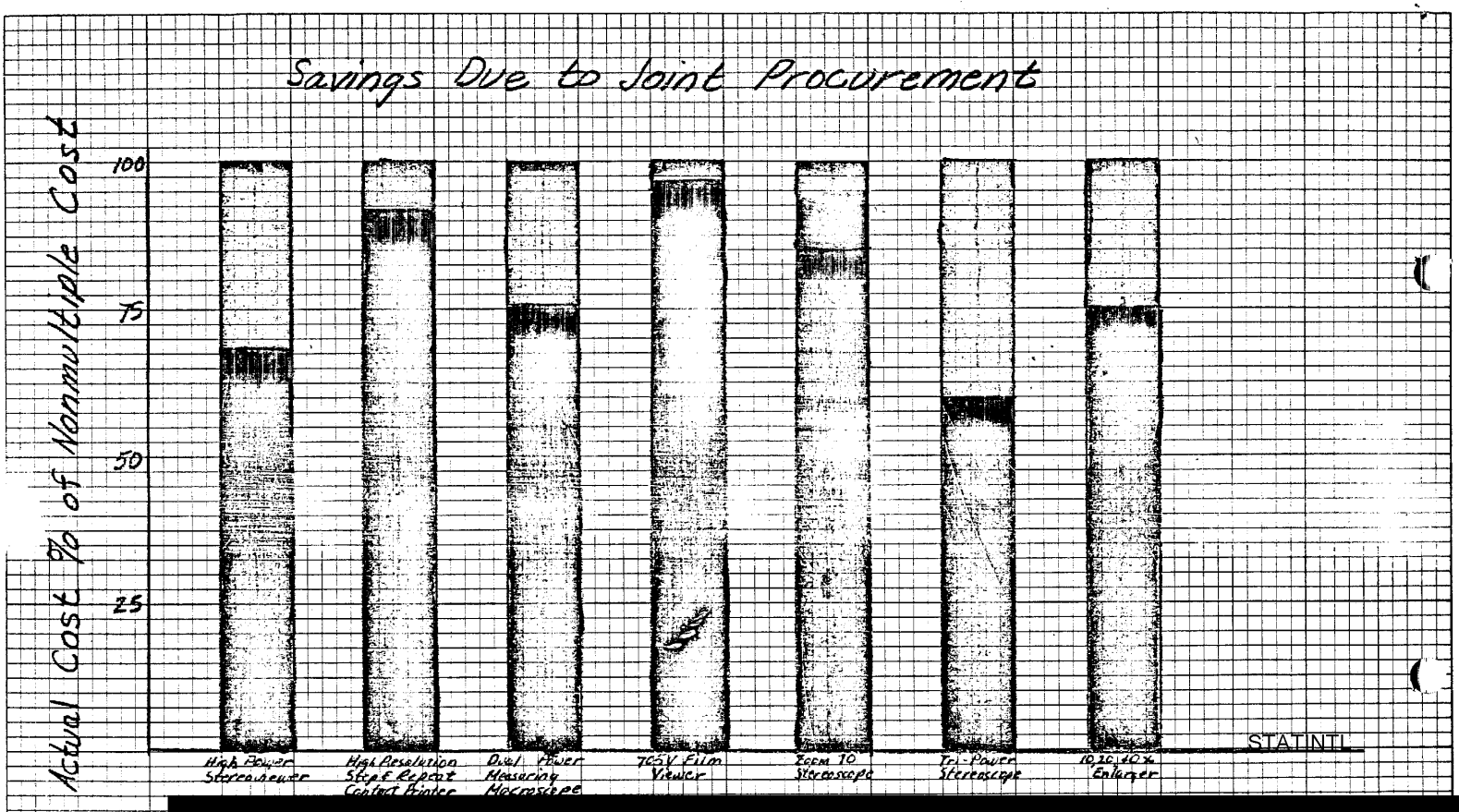
NO. 341-10 DIETZGEN GRAPH PAPER
10 X 10 PER INCH
EUGENE DIETZGEN CO.
MADE IN U. S. A.



[redacted]

SAC	13			Army	10	Army	2	Army	28	Army	4	Army	1
Army	6	GIMPAM	1	NPIC	35	AMS	4	AMS	10	A.F.	24	SAC	2
Navy	3	NPIC	1	Navy	15	ACIC	2	NPIC	26	Navy	2	SPPL	1
A.F.	3					AFIC	2			NPIC	12	AFIC	2
NPIC	19					FTD	1					ACIC	2
						NPIC	1					FTD	1
												Navy	1
												NPIC	1

26 October 1964

PLANS AND DEVELOPMENT STAFF, NPIC

REPRESENTATIVE JOINT DEVELOPMENT AND PROCUREMENT PROJECTS

1. High Power Stereoviewer [redacted] STATINTL

SAC	15	To Be Del 1965
Army	6	
Navy	2	
AF	2	
NPIC	19	

2. High Resolution Step & Repeat Contact Printer [redacted] STATINTL

GIMRADA	1	To Be Del 1966
NPIC	1	

STATINTL 3. 705V Film Viewer [redacted]

Army	2	Del 1962
AMS	4	
ACIC	2	
AFIC	2	
FTD	1	
NPIC	24	

STATINTL 4. Zoom 70 Stereoscope [redacted]

Army	28	Del 1960
AMS	10	
NPIC	26	

5. Tri Power Stereoscope [redacted] STATINTL

Army	4	Del 1960
AF	24	
Navy	2	STATINTL
NPIC	12	

6. High Precision Versatile Stereoscopic Viewer [redacted]

Navy	1	To Be Del 1965
Army	1	
NPIC	2	

7. Modification of Zoom 70 [redacted] STATINTL

Army	15	To Be Del 1964
SAC	30	
AFIC	12	
ACIC	4	
FTD	4	
NPIC	7	

STATINTL 8. 10, 20, 40X Enlarger [redacted]

Army	1	Del 1962
SAC	2	
SPPL	1	
AFIC	2	
ACIC	2	
FTD	1	
Navy	1	
NPIC	1	

9. Electronic Focus Indicators [redacted] STATINTL

SPPL	1	Del 1961
SAC	1	
ACIC	1	
FTD	1	
Army	1	
NPIC	1	

STATINTL 10. Photo Titler [redacted]

Army	1	Del 1962
SAC	1	
SPPL	1	
ACIC	6	
AFIC	2	
NPIC	2	

11. Microdensitometer Model 3 [redacted] STATINTL

Navy	2	Del 1961
NBS	1	
NPIC	1	

12. Sets of Special Resolution Test Films [redacted] STATINTL

Army	1	Del 1962
SAC	10	
AFIC	1	
ACIC	1	
FTD	1	
NPIC	3	

13. Panoramic Camera Rectifier Printer [redacted] STATINTL

Army	1	Del 1962
SAC	1	
ACIC	1	
NPIC	1	

14. Nadir Determination Device [redacted] STATINTL

ACIC	1	Del 1962
SAC	1	
NPIC	1	

15. Dual Power Macroscope [redacted] STATINTL

Army	10	To Be Del 1964
Navy	15	
NPIC	35	

Approved For Release 2001/05/11 : CIA-RDP78B04747A000900110002-9

NAME | Est Date of Del | Cost

DESCRIPTION

STATINTL

CURRENT DEVELOPMENT CONTRACTS

[redacted]

1 JUN 64 R&D- PHOTO INTERPN.
1. MAGNIFIER, ZOOM 8X - 18X PROTOTYPE
1 AT EA
NPIC/P&DS 1 31 MAR 65

A small, hand-held, Zoom tube magnifier. Item is to be about 86 mm high and is to permit 8X - 18X magnification. Intended for ~~Photo Interpre-~~ P.I. use~~tation~~ in the house and field. ~~use.~~ STATINTL

[redacted]

3 APR 64 R&D- PHOTO INTERPN.
1. STEREOSCOPE, HIGH RESOLUTION, HIGH MAGNIFICATION (3X-120X)
NPIC/P&DS 17 AUG 64

A high resolution microstereoscope with a magnification range of 3X - 120X with a maximum resolution of 600 lines/mm at 120X. This instrument incorporates 360° image rotation in each eye piece and has three separate rhomboid/relay systems which permit a total rhomboid span of ~~close to~~ about 15 inches. STATINTL

[redacted]

28 JUN 63 R&D- PHOTOGRAMMETRY
1. STEREOSCOPIC POINT TRANSFER DEVICE.
CHG NPIC LATE SEPT 64

This instrument is a high resolution roll-film viewer with laser marking system and mensuration readout. ~~This~~ The instrument will handle single or dual rolls of film between 70 mm and 9½" wide. Its fiber optic viewing system permits 1.5X - 135X zoom magnification in 4 stages with 600 lines/mm at 135X. Image rotation of 360° is incorporated. A laser fires through the optics to melt a small hole in the emulsion for point marking. A 2.5 micron x and y read-out is provided to give this unit a comparator capability.

[redacted]

	10 DEC 63	R&D- PHOTO INTERPN.			
	1.	VIEWER, STEREOSCOPIC, VERSATILE, HIGH PRECISION			STATINTL
		2 AT [redacted]			STATINTL
CHG		NPIC/PID	1	SEP 64	
		NPIC/PAG	1	1 OCT 64	
	2.	VIEWER, STEREOSCOPIC, VERSATILE, HIGH PRECISION, WITH CAPABILITY FOR MEASURING TO AN ACCURACY OF .0001 FOOT.			
STATINTL		1 AT [redacted]			
		NAVY	1	1 DEC 64	
	3.	VIEWER STEREOSCOPIC, VERSATILE, HIGH PRECISION, MODEL 552-A			
STATINTL		1 AT [redacted]			
		ARMY	1	30 MAR 65	

These instruments are merely viewer versions of the stereoscopic point transfer device above. They lack the laser marking system and the precision mensuration readout. However, the Navy unit does have shaft encoders for lower order mensuration work.

STATINTL

[redacted]

CHG	28 JUN 63	R&D- PHOTO INTERPN.			
	1.	STEREO CHIP COMPARATOR (H05A)			
		NPIC			
		~~RECEIVED PENDING ACCEPTANCE~~ Recieved			

~~Evaluation Processing~~ - A precise chip measuring instrument designed for photo interpreter use. Magnification ranges from 13X to a theoretical 4000X by interchange of eyepieces and objective lenses. Basic measurement results from an interferometer system which counts light fringes which, in turn, ~~in turn~~ converted to electrical signals and then displayed. Accuracies of $\frac{1}{4}$ micron least count are available with this instrument.

STATINTL

[redacted]

	29 JUN 64	R&D- PHOTO REPRODN.			
	1.	SPECIFIC FORMAT CHIP PRINTER			
		NPIC/P&DS		1 SEP 65	

A two-step contact printer designed to produce a 4" x 5" film chip containing a high resolution photographic image, human and machine readable code and classification.

[redacted]

11 MAY 64 R&D- PHOTO INTERPN.
1. ANAMORPHIC PROTOTYPE EYEPIECE
1 AT [redacted]
NPIC/P&DS
1 NOV 64 STATINTL
~~1 AUG 64~~ STATINTL
VARIABLE RATIO STATINTL

[redacted]

25 JUN 64 R&D- PHOTO INTERPN.
1. ANAMORPHIC PROTOTYPE EYEPIECE
1 AT [redacted] STATINTL
NPIC/P&DS
31 OCT 64

Eyepieces to enable the stereoscopic operation to enlarge imagery in one axis only. The eyepieces will have a stretch ratio of 2.8:1 in one axis with the other axis fixed. STATINTL

[redacted]

15 JUN 62 R&D-PHOTO INTERPN.
1. PANORAMIC STEREO VIEWER
CHG NPIC/PSD 1 NOV 64
CHG OVERRUN ANTICIPATED.

A roll-film stereoviewer capable of handling conventional, convergent and panoramic stereo images in widths from 70mm to 9½". STATINTL

[redacted]

22 MAR 62 R&D- PHOTO INTERPN.
1. VARIABLE MAGNIFICATION TRACING PROJECTOR
CHG NPIC/PID
CHG RECEIVED PENDING ACCEPTANCE

A rear-projection tracing projector for making line drawings from film positive chips or roll film at magnifications continuously variable from 2X to 16X.

[redacted]

19 MAY 64 R&D- PHOTO INTERPN. STATINTL

1. VARYSCAN REAR PROJECTOR FILM VIEWER

STATINTL 1 AT [redacted] NPIC/P&DS 15 SEP 64

A variable width film viewer that projects a full 9½" width frame at 3X, 6X, 12X, and 30X. In addition it will handle any width film from 35mm to 9½" with variable scan speeds from .1" to 2.5" per second and slew speeds from 60' to 230' per minute. STATINTL

[redacted]

29 JUN 63 R&D-PHOTO INTERPN.

1. VARIABLE WIDTH FILM READER.

CHG NPIC MID SEP 64

A variable-width film, rear-projection reader with a 10 micron least count that operates directly on-line with the Univac 490 computer. Four non-variable magnifications of 6x, 12x, 24x and 48x ~~are available~~, with screen intensities in excess of 500 foot lamberts, are available at all magnifications. The film is held in the image plane and cooled by a liquid freon film gate.

STATINTL

[redacted]

25 JUN 62 R&D PHOTO INTERPN.

1. PHOTO IMAGE MANIPULATION VIEWER

CHG NPIC/P&DS JAN 65

This ~~is a~~ development of the principle of automatic dodging ~~for application of~~ to the viewing ~~stage~~ rather than the printing ~~stage~~. It will provide the interpreter with the opportunity to control the contrast of a given image, at his own discretion.

STATINTL

[redacted]

15 JUN 62 R&D- SP. TECHNIQUES

1. CHANGE DETECTOR, DEVICE TO COMPARE IMAGERY OF A GEOGRAPHIC AREA TAKEN AT DIFFERENT TIMES AND AUTOMATICALLY READ OUT CHANGES.

MAXIMUM RESOLUTION 50 LINES PER MM.

NPIC/P&DS 30 AUG 64 RECEIVED

[redacted]

30 JUN 62 R&D- PHOTO REPRODN.
1. DEVELOP GAMMA RECTIFIERS AS A FOLLOW-ON FROM CONTRACT STATINTL BB-425, T.O. 5.
AMS 2 NOV 64

This is an improved version of the Gamma I rectifier-- A very successful development for special panoramic photo rectification. The new version will have higher performance and more versatility for accommodating distortions due to variations in attitude. STATINTL

[redacted]

21 NOV 63 R&D- PHOTOGRAMMETRY
1. FABRICATION, ACCEPTANCE TESTING, DELIVERY AND INSTRUCTION FOR USE OF A STELLAR COMPARATOR.
CHG NPIC/TID 15 OCT 64 FOB DESTINATION

This device will be a special-purpose comparator designed specifically for measurements of stellar plates for ~~the purpose of~~ determining the attitude of the taking vehicle. It will be highly automated for fast positioning, on-line read-out and image-centering. STATINTL

[redacted]

15 JUN 64 R&D- PHOTO INTERPN.
1. DIRECT (VIRTUAL) IMAGE VIEWER
1 AT EA
NPIC/P&DS 15 OCT 65

THE CONTRACT IS FOR
~~To design and build~~ a prototype direct image viewer, capable of presenting the eye with ultra-high resolution aerial images, which can be viewed simultaneously with both eyes at magnifications of 5X (60 l/mm) and 50X (200 l/mm), in a 10" x 10" field. STATINTL

[redacted]

30 JUN 64 R&D- PHOTOGRAMMETRY
1. FILM PROCESSOR DEVELOPMENT PROGRAM.
NPIC/P&DS 30 JUN 65

There has been developed a processor WHICH MAKES ~~making~~ use of liquid and air-bearing surfaces to support the film, preventing scratches and other deformations of the film. This is a new concept and requires an extensive study to obtain maximum efficiency from such a processing system. This program ~~is to make~~ INCLUDES such a study and WILL obtain ~~the~~ information necessary for the utilization of the liquid and air-bearing principle in processing equipment.

STATINTL

[redacted]

6 JUN 60 R&D- SP. TECHNIQUES
1. FABRICATE AN IMAGE ENHANCEMENT DEVICE
NPIC/PDS 1 DEVICE ACCEPTED.
TO BE STORED IN [redacted] UPON RECEIPT.

STATINTL

The object of this development is to present certain types of ground information, recorded on black and white film, in the form of selected colors. This color rendition will, among other things, be based on recorded image density and frequency in the occurrence of the information. STATINTL

[redacted]

10 MAY 64 R&D- PHOTO REPRODN.
1. PROTOTYPE. AUTOMATIC 4X5 INCH FILM CHIP PROCESSOR.
NPIC/P&DS 15 MAR 65

A printer is being developed to print selected areas from any negative on a 4x5-inch film chip. This processor will be for the automatic developing, fixing and drying of these film chips. Conventional film processing chemistry is being used, in this processor. STATINTL

[redacted]

29 JUN 64 R&D- PHOTO REPRODN.
1. STEP AND REPEAT CONTACT PRINTER
1 AT [redacted] STATINTL
NPIC/P&DS 30 SEP 65

This is actually a printer-processor making use of a heat development process recently developed by M.M.M. This material is capable of high resolution and the print is available for viewing immediately after printing - the entire process being included in the printer. carried out STATINTL

[redacted]

29 JUN 64 R&D- PHOTO REPRODN.
1. HIGH RESOLUTION STEP AND REPEAT CONTACT PRINTER
STATINTL 1 AT [redacted]
NPIC/P&DS 1 1 MAR 66

This printer will be to make multiple copies of the same size, either negative or positive, from high-information-density films. Automatic control is used to obtain maximum information from the originals.

[redacted]

		9 SEP 63	R&D-PHOTO INTERPN.	
		1.	PROTOTYPE COHERENT LIGHT ENLARGER AND SPATIAL FILTER. ITEM IN FINAL STAGES OF PROTOTYPE DESIGN.	
CHG			NPIC/P&DS	
CHG			DELIVERY PENDING INSPECTION LATE AUGUST.	

Conventional optics are not capable of 4X enlargement of the high-information-density (200 cycles per millimeter) now possible with current acquisition equipment. The coherent light system will increase capability to change this to 50 cyc/mm with little or no loss of information. Viewing equipment is capable of presenting information of the 50 cyc/mm resolution. Current.

The above listing consists of all contracts which will yield a working piece of hardware. In addition to these items, NPIC has many contracts for the study and investigation of new and unique methods which could ultimately be applied to improving the science of photo interpretation. Among them are color film studies, color enhancement program and investigation of unconventional reproduction materials. NPIC has several contracts in the field of image quality and microdensitometer evaluation. Heavy emphasis is also being given to the study of photo interpreter performance as a function of differing physical parameters such as resolution and stereo,